

Title (en)

Integrated circuits having separate power supply lines

Title (de)

Integrierte Schaltungen mit getrennter Spannungsversorgung

Title (fr)

Circuits intégrés à lignes d'alimentation électrique séparées

Publication

EP 1458025 A3 20070418 (DE)

Application

EP 03027229 A 20031128

Priority

DE 10301586 A 20030117

Abstract (en)

[origin: US2004178506A1] An integrated circuit has at least two circuit components (1, 2), which are formed on a semiconductor substrate (13) of a first conductivity type and each of which has a self-contained supply voltage system; the integrated circuit has at least one coupling circuit which connects the same potentials (Vss1, Vss2; Vcc1, Vcc2) of the two supply voltage systems in such a way as to intercept the voltage peaks. The coupling circuit includes at least one transistor (T1, T2, T3) with a base (20, 21, 22) of the first conductivity type, and a collector (15, 16, 17, 18) and emitter (15, 16, 17, 18) of a second conductivity type, the base of which transistor is connected through a resistor (R) to the potentials (Vss1, Vss2) of the two supply voltage systems, and the collector and emitter of which are directly connected to one of these potentials.

IPC 8 full level

H01L 27/02 (2006.01); **H01L 27/04** (2006.01); **H01L 21/822** (2006.01); **H01L 21/8222** (2006.01); **H01L 23/48** (2006.01); **H01L 23/62** (2006.01); **H01L 27/06** (2006.01); **H01L 27/082** (2006.01)

CPC (source: EP KR US)

H01L 23/62 (2013.01 - KR); **H01L 27/0259** (2013.01 - EP US)

Citation (search report)

- [A] JP H10290519 A 19981027 - HITACHI LTD
- [A] US 6271999 B1 20010807 - LEE JIAN-HSING [TW], et al
- [A] US 6011681 A 20000104 - KER MING-DOU [TW], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

US 2004178506 A1 20040916; **US 7202532 B2 20070410**; AT E433198 T1 20090615; DE 10301586 B3 20040226; DE 50311575 D1 20090716; EP 1458025 A2 20040915; EP 1458025 A3 20070418; EP 1458025 B1 20090603; JP 2004228567 A 20040812; JP 4555578 B2 20101006; KR 101190427 B1 20121011; KR 20040067827 A 20040730

DOCDB simple family (application)

US 76114404 A 20040120; AT 03027229 T 20031128; DE 10301586 A 20030117; DE 50311575 T 20031128; EP 03027229 A 20031128; JP 2004001877 A 20040107; KR 20030099542 A 20031230